MATH1120 **Spring 2011** **University of Colorado**

Assignment 6 Solutions Due: Monday, March 28, 2011

10-2A 1a The graph indicates that the car is worth about 70% of the original value, or about $8,400.

10-2A 1b At 5 years, the graph indicates that the car is worth 35% of its original value. This implies that the car has lost 65% of its value, or about $13,000.

10-2A 1c At 4 years, the graph indicates that the car is worth about 35%, or $7000.

10-2A 1d We look on the graph to see when the line passes 50%. This happens right after about 2 years, which is the point when the car should be traded in.

10-2A 3a negative

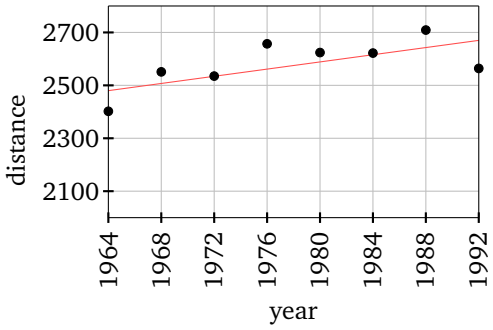
10-2A 3b There are two points about 25, and so we can average them to find a more accurate approximation. (We can also use the line, which in general is a faster approach.) The average 25-year-old watches approximately 10 movies per year.

10-2A 3c Based on the line through the scatter plot, 22-years-old.

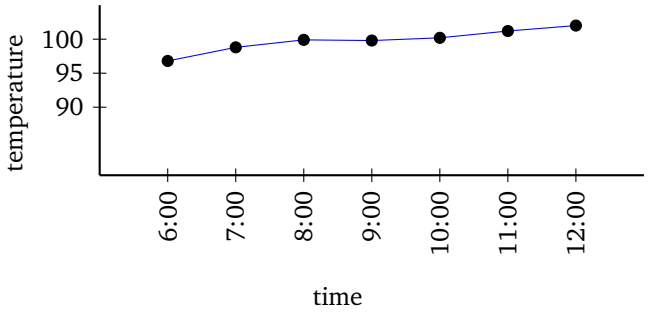
10-2A 5a (i) negative association (ii) There is an identifiable trend line that goes through the left-most and right-most points on the graph.

10-2A 5b (i) there is no association (or a very, very weak positive association) (ii) There is no identifiable trend line.

10-2A 7 In 1992, we expect a throw of about 2700.



10-2B 2 The temperature of the patient is slowly increasing over time.



10-2B 3 There is a positive association for each graph. The line for (a) looks something like $y = x$ and the line for (b) looks something like $y = x + 1$.

10-2B 7 (7) Population of Alaska and Hawaii in thousands of people. (8) Both states have a population that is increasing over time. The population for Hawaii seems to be growing at a rate slightly higher than that of Alaska. (9) For Alaska, the slope of the red curve at the far end of the graph indicates that the population will probably be around 700 thousand, while Hawaii appears to be just under 1400 thousand.

10-2 MC 1 There are various answers here. One is "if you want to drive a truck along a graph with positive association, you have to drive uphill as you go from left to right."